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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,153

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Hiroyuki Sakamoto

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EXAMINER

TAI, XIUYU

ART UNIT

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1795

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,153	Applicant(s) SAKAMOTO ET AL.	
	Examiner Xiuyu Tai	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :6/15/2005, 8/19/2005, 7/12/2006.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2, 17, 18, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 2 recites the limitation "the step of heating for curing" in line 3. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 16 is rejected under 35 U.S.C. 102(b)) as being anticipated by Kawakami et al (U.S. 6,106,684).
6. Regarding claim 16, Kawakami et al disclose a cationic electrodeposition coating process and composition. Kawakami teaches a cationic electrodeposition coating composition contains a component having a hydratable function group (col. 5, line 11-

17) and a component having an unsaturated bond (col. 5, line 60-63). Kawakami teaches every component as cited in the instant claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 1-15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadokura (U.S. 5,676,812) in view of Kawakami et al (U.S. 6,106,684).

11. Regarding claim 1, Kadokura discloses an electroconductive adhesive member. The adhesive member 1 is attached to the inner surface of an outer cover 11 by forming adhesive resin layer 4 on a thin metallic film layer 3 (copper film) by electrodeposition coating (Figure 1; col. 3, line 35-43; example 1-1, col. 9, line 48-67).

12. Kadokura fails to teach the adhesive composition comprising a hydratable function group and unsaturated bond containing cationic resin composition. However, Kawakami et al disclose a cationic electrodeposition coating process and composition. Kawakami teaches a water-based cationic electrodeposition coating composition (col. 3, line 31-32). The cationic electrodeposition coating composition of Kawakami contains a component having a hydratable function group, such as sulfonium (col. 5, line 11-17). Kawakami indicates that the ionic group in the hydratable function group is capable of ion releasing upon voltage application (col. 5, line 12-15) and can be irreversibly rendered non-conductive due to the electrolytic reduction reaction (col. 5, line 19-21). Kawakami further teaches that when the cationic electrodeposition coating composition contains a component having an unsaturated bond, a further improved throwing power can be obtained (col. 5, line 60-63). Therefore, it would be obvious for one having ordinary skill in the art to utilize the cationic electrodeposition coating composition comprising a hydratable function group and an unsaturated bond as suggested by

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Kawakami in lieu of the electrodeposition composition of Kadokura in order to enhance coating quality and efficiency while using the coating method of Kadokura.

13. Regarding claim 2, Kawakami teaches a water-based coating composition (col. 3, line 31-32); hence no volatile material would be produced when the coating product was subjected to heating process, reads on the instant claim.

14. Regarding claims 3 and 17, the cationic coating composition of Kawakami is used in electrodeposition coating process, including a step of applying voltage to activate electrochemical reaction (col. 3, line 28-30), reads on the instant claims.

15. Regarding claims 4, 18, and 19, the hydratable function group of Kawakami is sulfonium (col. 5, line 11-17), reads on the instant claims.

16. Regarding claims 5 and 20, the unsaturated bond of Kawakami may be a triple-bond containing compound such as propargyl alcohol (col. 7, line 10-15), reads on the instant claims.

17. Regarding claims 6 and 7, the amount of sulfonium of Kawakami is in the range of 10-300 mmol/100g of the resin solid (col. 5, line 44-45) and the content of unsaturated bond is preferably 50-2000 mmol/100g of the resin solids (col. 6, line 10-12), which are within the claimed ranges.

18. Regarding claim 8, the cationic coating composition of Kawakami contains polyepoxide resin skeleton (col. 6, line 23-29), reads on the instant claim.

19. Regarding claim 9, the polyepoxide of Kawakami includes novolak phenol type polyepoxy resins and/or cresol type polyepoxy resins (col. 6, line 30, 32-33) and the

average molecular weight of resin is in the range of 250- 20,000, more preferably 500-500 (col. 6, line 36-38), reads on the instant claim.

20. Regarding claim 10, Kadokura teaches a step of drying the obtained electroconductive adhesive member¹ at 50C, but before attaching it to the etched resin substrate (example 1; col. 9, line 55-67), reads on the instant claim.

21. Regarding claim 11, Kadokura further teaches a step of curing the product with coating on by heating (col. 10, line 1-5), reads on the instant claim.

22. Regarding claim 12, Kadokura also teaches eletroconductive adhesive resin layers 4 are formed on both sides of a metallic substrate 5 (Figure 2; col. 3, line 46-48) wherein the adhesive resin layers 4 are the adhered surface, reads on the instant claim.

23. Regarding claim 13, Kadokura also teaches eletroconductive adhesive resin layers 4 are formed on both sides of a metallic substrate 5 (Figure 2; col. 3, line 46-48) wherein the metallic substrate 5 is the adhesion target and the adhesive resin layers 4 are the adhered surface, reads on the instant claim.

24. Regarding claim 14, the thin metallic film layer 3 of Kadokura is a thin copper film (col. 3, line 39-40), reads on the instant claim.

25. Regarding claim 15, it is a product (laminate)-by-process (the method of claim1) claim. Because of the nature of product-by-process claims the Examiner cannot ordinarily focus on the precise difference between the claimed product and the disclosed product. It is then Applicants' burden to prove that an unobvious difference exists. See *In re Marosi*, 218 USPQ 289,292-293 (CAFC 1983). Furthermore, it is noted that this claim contains product-by-process language. If the product in the product-by-

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process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Double Patenting

26. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

27. Claims 1-11 are provisionally rejected on the ground of nonstatutory double patenting over claims 1,4, 6-9 of copending Application No. 10/528,154. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

28. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that

copending application since the referenced copending application and the instant application are claiming common subject matter. Although the conflicting claims are not identical, they are not patentably distinct from each other. The instant application claims a method for of adhesion of conductive materials while the copending application claims the same. Claims 1-20 of the instant application reads on claims 1-20 of copending Application No. 10/538,154. The copending application claims a method that comprises all the steps and compositions similar to those of the instant application.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuyu Tai whose telephone number is 571-270-1855. The examiner can normally be reached on Monday - Friday, 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/X. T./

Examiner, Art Unit 1795

7/21/2008

/Alexa D. Neckel/

Supervisory Patent Examiner, Art Unit 1795